

REMARKS

In the September 10, 2008 Office Action, the drawings and specification were objected to and all of the claims stand rejected in view of prior art. No other objections or rejections were made in the Office Action.

Status of Claims and Amendments

In response to the September 10, 2008 Office Action, Applicants have amended the title and claims 1 and 6 as indicated above. Also, Applicants have cancelled claims 2, 3 and 5 as indicated above. Thus, claims 1, 4, 6 and 7 are pending, with claim 1 being the only independent claim. Reexamination and reconsideration of the pending claims are respectfully requested in view of above amendments and the following comments.

Drawings

In paragraph 2 of the Office Action, the drawings were objected to as failing to comply with 37 CFR §1.83(a). In response, Applicants have cancelled claim 5. Thus, Applicants believe that the drawings now comply with 37 CFR §1.83(a). Accordingly, Applicants respectfully request withdrawal of this objection.

Specification

In paragraph 3 of the Office Action, the title was objected to for being not descriptive. In response, Applicants have amended the title to "SWING COMPRESSOR HAVING A SMALL-WIDTH PORTION AND A LARGE-WIDTH PORTION IN AN INNER CIRCUMFERENTIAL SLIDING SURFACE OF A SWINGING ROLLER". Applicants believe that the title is now sufficiently descriptive. Accordingly, withdrawal of this objection is respectfully requested.

Rejections - 35 U.S.C. § 102

In paragraphs 4 and 5 of the Office Action, claims 1, 3, 4 and 6 stand rejected under 35 U.S.C. §102(b) as being anticipated by Japanese Patent Publication No. 06-147165 (Masuda). Claim 1 is also rejected as being anticipated by Japanese Patent Publication No.

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57-176686. In response, Applicants have amended independent claim 1 to add the limitations of previous claims 2 and 3 and amended claim 6 so as to depend from independent claim 1 rather than cancelled claim 5.

With respect to the rejection based on the '165 publication, since independent claim 1 now requires the limitations as set forth in previous claim 2, withdrawal of this rejection is respectfully requested. In particular, previous claim 2 is not rejected under 35 U.S.C. §102(b) as being anticipated by the '165 publication. Thus, independent claim 1, which includes the limitations of previous claim 2, cannot be rejected under 35 U.S.C. §102(b) as being anticipated by either of these references.

With respect to the '686 publication, since independent claim 1 now requires the limitations as set forth in previous claims 2 and 3, withdrawal of this rejection is respectfully requested. In particular, previous claims 2 and 3 are not rejected under 35 U.S.C. §102(b) as being anticipated by the '686 publication. In fact, this reference does not have any relation to the amended claim 1. That is not only because the roller 8 of the '686 publication is not of a swing type whatsoever, but also because the portions 8a and 8b of the roller 8 are not inner circumferential surfaces but axial end surfaces as understood from Fig.3 of the '686 publication.

It is well settled under U.S. patent law that for a reference to anticipate a claim, the reference must disclose each and every element of the claim within the reference. Accordingly, in view of the amendments and arguments above, withdrawal of these rejections of claims 1, 4 and 6 is respectfully requested.

Rejections - 35 U.S.C. § 103

In paragraphs 6-8 of the Office Action, claims 2, 5 and 7 stand rejected under 35 U.S.C. §103(a). Specifically, these claims are rejected as follows:

- (A) Claim 2 stands rejected as being unpatentable over the '165 publication;
- (B) Claim 5 stands rejected as being unpatentable over the '165 publication in view of design choice; and
- (C) Claim 7 stands rejected as being unpatentable over the '165 publication in view of U.S. Patent No. 4,904,302 (Shimomura).

In response to rejection (B), Applicants have cancelled claim 5 as mentioned above. Thus, rejection (B) is now moot.

In response to rejections (A) and (C), Applicants have amended independent claim 1 to add the limitations of previous claims 2 and 3, and further amended independent claim 1 to more clearly define the present invention over the prior art of record.

In particular, independent claim 1 now requires, *inter alia*, the cylinder having a reference line contained in a longitudinally extending center plane of the blade and lying on the inner circumferential sliding surface of the roller; the small-width portion being disposed only in a range extending between a point located 30° from the reference line and a point located 180° from the reference line in a rotational direction of the drive shaft in the inner circumferential sliding surface; and the small-width portion being provided on one side with respect to the longitudinally extending center plane of the blade, with the cylinder including a suction port that communicates with the suction chamber along the one side. Clearly, this arrangement is not disclosed or suggested by the '165 publication and the Shimomura patent, whether applied singularly or in combination.

The Office Action acknowledges that none of the prior art references discloses the arrangement of previous claim 2, but alleges that the arrangement is an obvious range, which involves only routine skill in the art to obtain. Applicants disagree, especially in view of the clarifying amendments to independent claim 1. Specifically, independent claim 1 now requires the small-width portion being disposed only in a range extending between a point located 30° from the reference line and a point located 180° from the reference line in a rotational direction of the drive shaft in the inner circumferential sliding surface. In other words, independent claim 1 requires a small width portion disposed in a *150° range*. On the other hand, the so-called small width portion 21 in the '165 publication extends *180°*. Thus, even if a particular angular location of the so-called small width portion 21 of the '165 publication were utilized to optimize or improve performance, the so-called small width portion 21 would still extend too far. In other words, there is no teaching in the '165 publication, any other prior art of record, or in the general knowledge of the art to even experiment with the angular range of a small width portion. Thus, there can be no reason provided in the '165 publication, any other prior art of record or general knowledge within

the art to make the so-called small width portion 21 of the ‘165 publication extend the claimed smaller amount in the particularly claimed location.

Thus, the conclusion is inescapable that a rejection of amended claim 1 requires impermissible hindsight gleaned from Applicants’ disclosure not based on acceptable scientific reasoning or evidence in the record. With the presently claimed invention, the start point of the small-width portion is obtained by a 30° shift from the coupling portion between the blade and the roller serving as a start point of the light load portion. Therefore, even if a large load acts on a vicinity of the coupling portion between the blade and the roller during the discharge operation, the vicinity does not cause any damage because the vicinity is not the small-width portion but the large-width portion, so that enough durability and the safety can be ensured. Accordingly, the above structure, function and effect, which result from the unique arrangement set forth in amended claim 1, are neither disclosed nor even contemplated in the ‘165 publication.

Moreover, with respect to claim 7, in the ‘165 publication and the Shimomura patent; the small-width portion of the drive shaft is formed primarily by mechanical machining, which is extremely laborious and takes quite large numbers of man-hours, resulting in higher cost of the compressor. In contrast, since the piston of the present claim 7 is made of a porous sintered material, the machining of the small-width portion can be omitted so that the manufacturing cost for the piston can be cut down. The compressor of the present claim 7 can reduce machining loss with lower cost than those of the ‘165 publication and the Shimomura patent. In other words, one of ordinary skill in the art would not use the sintered material of the Shimomura patent for the so-called small width portion of the ‘165 publication because of the above difficulties. Accordingly, claim 7 is believed to be allowable by virtue of its dependence from claim 1, but also for the above reasons.

Under U.S. patent law, the mere fact that the prior art can be modified does *not* make the modification obvious, unless an *apparent reason* exists based on evidence in the record or scientific reasoning for one of ordinary skill in the art to make the modification. See, KSR Int’l Co. v. Teleflex Inc., 127 S.Ct. 1727, 1741 (2007). The KSR Court noted that obviousness cannot be proven merely by showing that the elements of a claimed device were known in the prior art; it must be shown that those of ordinary skill in the art would have had

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some “apparent reason to combine the known elements in the fashion claimed.” Id. at 1741. The current record lacks any apparent reason, suggestion or expectation of success for combining the patents to create Applicants’ unique arrangement of *the small-width portion being disposed only in a range extending between a point located 30° from the reference line and a point located 180° from the reference line in a rotational direction of the drive shaft in the inner circumferential sliding surface* of independent claim 1.

Prior Art Citation

In the Office Action, additional prior art references were made of record. Applicants believe that these references do not render the claimed invention obvious.

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In view of the foregoing amendment and comments, Applicants respectfully assert that claims 1, 4, 6 and 7 are now in condition for allowance. Reexamination and reconsideration of the pending claims are respectfully requested.

Respectfully submitted,

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